

RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: 10/664,506A
Source: IPW16
Date Processed by STIC: 8/9/05

ENTERED

BEST AVAILABLE COPY

**CRF ERRORS EDITED BY THE STIC SYSTEMS
Branch**

Serial Number: 10/664,506A

CRF Edit Date: 8/10/05
Edited by: JR

Realigned nucleic acid/amino acid numbers/text in cases where the sequence text "wrapped" to the next line

Corrected the SEQ ID NO. Sequence numbers edited were:

Inserted or corrected a nucleic number at the end of a nucleic line. SEQ ID NO's edited:

Deleted: invalid beginning/end-of-file text ; page numbers

Inserted mandatory headings/numeric identifiers, specifically:

Moved responses to same line as heading/numeric identifier, specifically:

Other:



IFW16

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/664,506A

DATE: 08/10/2005

TIME: 13:55:23

Input Set : A:\PTO.AMC.txt
 Output Set: N:\CRF4\08102005\J664506A.raw

4 <110> APPLICANT: Meyers, Rachel
 5 Cook, William James
 6 Williamson, Mark
 7 Rudolph-Owen, Laura A.
 8 Gimeno, Ruth
 10 <120> TITLE OF INVENTION: 21481, A NOVEL DEHYDROGENASE MOLECULE
 AND USES THEREFOR
 11
 14 <130> FILE REFERENCE: MPI00-079P1RCP2CN1M
 16 <140> CURRENT APPLICATION NUMBER: 10/664,506A
 17 <141> CURRENT FILING DATE: 2003-09-17
 19 <150> PRIOR APPLICATION NUMBER: 09/838,561
 20 <151> PRIOR FILING DATE: 2001-04-18
 22 <150> PRIOR APPLICATION NUMBER: 09/816,760
 23 <151> PRIOR FILING DATE: 2001-03-23
 25 <150> PRIOR APPLICATION NUMBER: 09/634,955
 26 <151> PRIOR FILING DATE: 2000-08-08
 28 <150> PRIOR APPLICATION NUMBER: 60/192,002
 29 <151> PRIOR FILING DATE: 2000-03-24
 31 <160> NUMBER OF SEQ ID NOS: 34
 33 <170> SOFTWARE: FastSEQ for Windows Version 4.0
 35 <210> SEQ ID NO: 1
 36 <211> LENGTH: 2660
 37 <212> TYPE: DNA
 38 <213> ORGANISM: Homo sapiens
 40 <220> FEATURE:
 41 <221> NAME/KEY: CDS
 42 <222> LOCATION: (63)...(2468)
 44 <221> NAME/KEY: misc_feature
 45 <222> LOCATION: 6, 8
 46 <223> OTHER INFORMATION: n = A,T,C or G
 W--> 48 <400> 1
 W--> 49 cctttnrc cacgcgtccg agagcgcccc gcagtcggc cgaaagcg tccgggtagg 60
 50 cg atg gct gcg acg cgt gca ggg ccc cgc gcc cgc gag atc ttc acc 107
 51 Met Ala Ala Thr Arg Ala Gly Pro Arg Ala Arg Glu Ile Phe Thr
 52 1 5 10 15
 54 tcg ctg gag tac gga ccg gtg ccg gag agc cac gca tgc gca ctg gcc 155
 55 Ser Leu Glu Tyr Gly Pro Val Pro Glu Ser His Ala Cys Ala Leu Ala
 56 20 25 30
 58 tgg ctg gac acc cag gac ccg tgc ttg ggc cac tat gtg aat ggg aag 203
 59 Trp Leu Asp Thr Gln Asp Arg Cys Leu Gly His Tyr Val Asn Gly Lys
 60 35 40 45
 62 tgg tta aag cct gaa cac aga aat tca gtg cct tgc cag gat ccc atc 251
 63 Trp Leu Lys Pro Glu His Arg Asn Ser Val Pro Cys Gln Asp Pro Ile

P, b

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PATENT APPLICATION: US/10/664,506A

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64	50	55	60	
66	aca gga gag aac ttg gcc agt tgc ctg cag gca cag gcc gag gat gtg			299
67	Thr Gly Glu Asn Leu Ala Ser Cys Leu Gln Ala Gln Ala Glu Asp Val			
68	65	70	75	
70	gct gca gcc gtg gag gca agg atg gca ttt aag ggc tgg agt gcg			347
71	Ala Ala Ala Val Glu Ala Ala Arg Met Ala Phe Lys Gly Trp Ser Ala			
72	80	85	90	95
74	cac ccc ggc gtc gtc cggt cgg cag cac ctg acc agg ctg gcc gag gtg			395
75	His Pro Gly Val Val Arg Ala Gln His Leu Thr Arg Leu Ala Glu Val			
76	100	105	110	
78	atc cag aag cac cag cggt ctg ctg tgg acc ctg gaa tcc ctg gtg act			443
79	Ile Gln Lys His Gln Arg Leu Leu Trp Thr Leu Glu Ser Leu Val Thr			
80	115	120	125	
82	ggg cgg gct gtt cga gag gtt cga gac ggg gac gtc cag ctg gcc cag			491
83	Gly Arg Ala Val Arg Glu Val Arg Asp Gly Asp Val Gln Leu Ala Gln			
84	130	135	140	
86	cag ctg ctc cac tac cat gca atc cag gca tcc acc cag gag gag gca			539
87	Gln Leu Leu His Tyr His Ala Ile Gln Ala Ser Thr Gln Glu Glu Ala			
88	145	150	155	
90	ctg gca ggc tgg gag ccc atg gga gta att ggc ctc atc ctg cca ccc			587
91	Leu Ala Gly Trp Glu Pro Met Gly Val Ile Gly Leu Ile Leu Pro Pro			
92	160	165	170	175
94	aca ttc tcc ttc ctt gag atg atg tgg agg att tgc cct gcc ctg gct			635
95	Thr Phe Ser Phe Leu Glu Met Met Trp Arg Ile Cys Pro Ala Leu Ala			
96	180	185	190	
98	gtg ggc tgc acc gtg gtg gcc ctc gtg ccc ccg gcc tcc ccg gcg ccc			683
99	Val Gly Cys Thr Val Val Ala Leu Val Pro Pro Ala Ser Pro Ala Pro			
100	195	200	205	
102	ctc ctc ctg gcc cag ctg gcg ggg gag ctg ggc ccc ttc ccg gga atc			731
103	Leu Leu Leu Ala Gln Leu Ala Gly Glu Leu Gly Pro Phe Pro Gly Ile			
104	210	215	220	
106	ctg aat gtc gtc agt ggc cct gcg tcc ctg gtg ccc atc ctg gcc tcc			779
107	Leu Asn Val Val Ser Gly Pro Ala Ser Leu Val Pro Ile Leu Ala Ser			
108	225	230	235	
110	cag cct gga atc cgg aag gtg gcc ttc tgc gga gcc ccg gag gaa ggg			827
111	Gln Pro Gly Ile Arg Lys Val Ala Phe Cys Gly Ala Pro Glu Glu Gly			
112	240	245	250	255
114	cgt gcc ctt cga cgg agc ctg gcg gga gag tgt gcg gag ctg ggc ctg			875
115	Arg Ala Leu Arg Arg Ser Leu Ala Gly Glu Cys Ala Glu Leu Gly Leu			
116	260	265	270	
118	gcg ctg ggg acg gag tcg ctg ctg acg gac acg gcg gac gta			923
119	Ala Leu Gly Thr Glu Ser Leu Leu Leu Thr Asp Thr Ala Asp Val			
120	275	280	285	
122	gac tcg gcc gtg gag ggt gtc gtg gac gcc gcc tgg tcc gac cgc ggc			971
123	Asp Ser Ala Val Glu Gly Val Val Asp Ala Ala Trp Ser Asp Arg Gly			
124	290	295	300	
126	ccg ggt ggc ctc agg ctc atc cag gag tct gtg tgg gat gaa gcc			1019
127	Pro Gly Gly Leu Arg Leu Leu Ile Gln Glu Ser Val Trp Asp Glu Ala			
128	305	310	315	

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130	atg	aga	cgg	ctg	cag	gag	cgg	atg	ggg	cgg	ctt	cgg	agt	ggc	cga	ggg	1067
131	Met	Arg	Arg	Leu	Gln	Glu	Arg	Met	Gly	Arg	Leu	Arg	Ser	Gly	Arg	Gly	
132	320				325						330					335	
134	ctg	gat	ggg	gcc	gtg	gac	atg	ggg	gcc	cgg	ggg	gct	gcc	gca	tgt	gac	1115
135	Leu	Asp	Gly	Ala	Val	Asp	Met	Gly	Ala	Arg	Gly	Ala	Ala	Cys	Asp		
136						340					345					350	
138	ctg	gtc	cag	cgc	ttt	gtg	cgt	gag	gcc	cag	agc	cag	ggt	gca	cag	gtg	1163
139	Leu	Val	Gln	Arg	Phe	Val	Arg	Glu	Ala	Gln	Ser	Gln	Gly	Ala	Gln	Val	
140						355					360					365	
142	ttc	cag	gct	ggt	gat	gtg	cct	tcg	gaa	cgc	cca	ttc	tat	ccc	cca	acc	1211
143	Phe	Gln	Ala	Gly	Asp	Val	Pro	Ser	Glu	Arg	Pro	Phe	Tyr	Pro	Pro	Thr	
144						370					375					380	
146	ttg	gtc	tcc	aac	ctg	ccc	cca	gcc	tcc	cca	tgt	gcc	cag	gtg	gag	gtg	1259
147	Leu	Val	Ser	Asn	Leu	Pro	Pro	Ala	Ser	Pro	Cys	Ala	Gln	Val	Glu	Val	
148						385					390					395	
150	ccg	tgg	cct	gtg	gtc	gtg	gcc	tcc	ccc	tcc	cgc	aca	gcc	aag	gag	gca	1307
151	Pro	Trp	Pro	Val	Val	Val	Ala	Ser	Pro	Phe	Arg	Thr	Ala	Lys	Glu	Ala	
152						400					405					410	415
154	ctg	ttg	gtg	gcc	aac	ggg	acg	ccc	cgc	ggg	ggc	agc	gcc	agt	gtg	tgg	1355
155	Leu	Leu	Val	Ala	Asn	Gly	Thr	Pro	Arg	Gly	Gly	Ser	Ala	Ser	Val	Trp	
156						420					425					430	
158	agc	gag	agg	ctg	ggg	cag	gcg	ctg	gag	ctg	ggc	tat	ggg	ctc	cag	gtg	1403
159	Ser	Glu	Arg	Leu	Gly	Gln	Ala	Leu	Glu	Leu	Gly	Tyr	Gly	Leu	Gln	Val	
160						435					440					445	
162	ggc	act	gtc	tgg	atc	aac	gcc	cac	ggc	ctc	aga	gac	cct	tcg	gtg	ccc	1451
163	Gly	Thr	Val	Trp	Ile	Asn	Ala	His	Gly	Leu	Arg	Asp	Pro	Ser	Val	Pro	
164						450					455					460	
166	aca	ggc	ggc	tgc	aag	gag	agt	ggg	tgt	tcc	tgg	cac	ggg	ggc	cca	gac	1499
167	Thr	Gly	Gly	Cys	Lys	Glu	Ser	Gly	Cys	Ser	Trp	His	Gly	Gly	Pro	Asp	
168						465					470					475	
170	ggg	ctg	tat	gag	tat	ctg	cgg	ccc	tca	ggg	acc	cct	gcc	cgg	ctg	tcc	1547
171	Gly	Leu	Tyr	Glu	Tyr	Leu	Arg	Pro	Ser	Gly	Thr	Pro	Ala	Arg	Leu	Ser	
172						480					485					490	495
174	tgc	ctc	tcc	aag	aac	ctg	aac	tat	gac	acc	ttt	ggc	ctc	gct	gtg	ccc	1595
175	Cys	Leu	Ser	Lys	Asn	Leu	Asn	Tyr	Asp	Thr	Phe	Gly	Leu	Ala	Val	Pro	
176						500					505					510	
178	tca	acc	ctg	ccg	gct	ggg	cct	gaa	ata	ggg	ccc	agc	cca	gca	ccc	ccc	1643
179	Ser	Thr	Leu	Pro	Ala	Gly	Pro	Glu	Ile	Gly	Pro	Ser	Pro	Ala	Pro	Pro	
180						515					520					525	
182	tat	ggg	ctc	tcc	ttc	ggg	ggc	cgt	ttc	cag	gct	cct	ggg	gcc	cga	agc	1691
183	Tyr	Gly	Leu	Phe	Val	Gly	Gly	Arg	Phe	Gln	Ala	Pro	Gly	Ala	Arg	Ser	
184						530					535					540	
186	tcc	agg	ccc	atc	cg	gat	tcg	tct	ggc	aat	ctc	cat	ggc	tac	gtg	gct	1739
187	Ser	Arg	Pro	Ile	Arg	Asp	Ser	Ser	Gly	Asn	Leu	His	Gly	Tyr	Val	Ala	
188						545					550					555	
190	gag	gg	g	g	aa	g	ac	atc	cg	gg	tt	g	ct	gg	gg	cc	1787
191	Glu	Gly	Gly	Ala	Lys	Asp	Ile	Arg	Gly	Ala	Val	Glu	Ala	Ala	His	Gln	
192						560					565					570	575
194	gct	ttc	cct	ggc	tgg	g	gc	g	ca	tcc	cca	gga	gcc	cgg	gca	ctg	1835

RAW SEQUENCE LISTING
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Input Set : A:\PTO.AMC.txt
 Output Set: N:\CRF4\08102005\J664506A.raw

195	Ala	Phe	Pro	Gly	Trp	Ala	Gly	Gln	Ser	Pro	Gly	Ala	Arg	Ala	Ala	Leu			
196						580				585						590			
198	ctg	tgg	gcc	ctg	gcg	gct	gca	ctg	gag	cgc	cg	aag	tct	acc	ctg	gcc	1883		
199	Leu	Trp	Ala	Leu	Ala	Ala	Leu		Glu	Arg	Arg	Lys	Ser	Thr	Leu	Ala			
200						595			600						605				
202	tca	agg	ctg	gag	agg	cag	gga	gcg	gag	ctc	aag	gct	gcg	gag	gag	gag	1931		
203	Ser	Arg	Leu	Glu	Arg	Gln	Gly	Ala	Glu	Leu	Lys	Ala	Ala	Glu	Ala	Glu			
204						610			615						620				
206	gtg	gag	ctg	agc	gca	aga	cga	ctt	cg	g	tc	g	g	gg	cc	gg	gt	c	1979
207	Val	Glu	Leu	Ser	Ala	Arg	Arg	Leu	Arg	Ala	Trp	Gly	Ala	Arg	Val	Gln			
208						625			630						635				
210	gcc	caa	ggc	cac	acc	ctg	cag	gta	gcc	gg	ctg	aga	ggc	cct	gt	ctg		2027	
211	Ala	Gln	Gly	His	Thr	Leu	Gln	Val	Ala	Gly	Leu	Arg	Gly	Pro	Val	Leu			
212						640			645			650			655				
214	cgc	ctg	cg	gag	ccg	ctg	gg	gt	gt	ct	g	gt	gt	tgt	ccg	gac	gag	2075	
215	Arg	Leu	Arg	Glu	Pro	Leu	Gly	Val	Leu	Ala	Val	Val	Cys	Pro	Asp	Glu			
216						660			665			670			670				
218	tgg	ccc	ctg	ctt	gcc	t	tc	gt	tcc	ctg	ctg	g	ct	cc	gg	cc	tac	2123	
219	Trp	Pro	Leu	Leu	Ala	Phe	Val	Ser	Leu	Leu	Ala	Pro	Ala	Leu	Ala	Tyr			
220						675			680			685			685				
222	ggc	aac	act	gt	gt	at	gt	ccc	agt	g	cc	t	gt	ct	gt	cc	tt	2171	
223	Gly	Asn	Thr	Val	Val	Met	Val	Pro	Ser	Ala	Ala	Cys	Pro	Leu	Leu	Ala			
224						690			695			700			700				
226	ctg	gag	gt	tc	ca	g	ac	gt	tc	cc	ca	gg	cc	ct	gg	cc		2219	
227	Leu	Glu	Val	Cys	Gln	Asp	Met	Ala	Thr	Val	Phe	Pro	Ala	Gly	Leu	Ala			
228						705			710			715			715				
230	aac	gt	gt	aca	gg	g	ac	cg	g	ac	cat	ct	cc	tg	cc	tt		2267	
231	Asn	Val	Val	Thr	Gly	Asp	Arg	Asp	His	Leu	Thr	Arg	Cys	Leu	Ala	Leu			
232						720			725			730			735				
234	cac	caa	gac	gt	ca	gg	at	tg	ta	tt	gg	ta	cc	ca	gg	tt		2315	
235	His	Gln	Asp	Val	Gln	Ala	Met	Trp	Tyr	Phe	Gly	Ser	Ala	Gln	Gly	Ser			
236						740			745			750			750				
238	cag	ttt	gt	ca	gg	t	gg	cc	tc	gg	ca	gg	aa	cc	gt	tg	gg	2363	
239	Gln	Phe	Val	Glu	Trp	Ala	Ser	Ala	Gly	Asn	Leu	Lys	Pro	Val	Trp	Ala			
240						755			760			765			765				
242	agc	agg	gg	tc	cc	cg	gg	tc	gg	ac	ca	gg	gg	gg	gg	gg		2411	
243	Ser	Arg	Gly	Cys	Pro	Arg	Ala	Trp	Asp	Gln	Glu	Ala	Glu	Gly	Ala	Gly			
244						770			775			780			780				
246	cca	gag	ct	gg	ct	ca	gt	gg	cg	cc	ac	a	ag	cc	ct	tg	c	2459	
247	Pro	Glu	Leu	Gly	Leu	Arg	Val	Ala	Arg	Thr	Lys	Ala	Leu	Trp	Leu	Pro			
248						785			790			795			795				
250	atg	ggg	gac	t	at	gc	tc	tg	cc	cc	tt	gg	cc	tt	gg	cc	tt	2508	
251	Met	Gly	Asp																
252	800																		
254	accaagggg	gat	gc	cccc	ac	ag	ac	cc	gg	act	tt	cc	tt	ct	gt	gt	tc	2568	
255	ccaataaa	act	ct	ct	gac	cc	cc	taaaaaaa	aaa	aaaaaaa	aaa	aaaaaaa	aaa	aaaaaaa	aaa	rwar	maactt	2628	
256	ctggcagata	tg	agg	ctttt	tt	ct	ttttttt	tt										2660	
258	<210>	SEQ	ID	NO:	2														
259	<211>	LENGTH:	802																

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/664,506A

DATE: 08/10/2005

TIME: 13:55:23

Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\08102005\J664506A.raw

260 <212> TYPE: PRT
 261 <213> ORGANISM: Homo sapiens
 263 <400> SEQUENCE: 2
 264 Met Ala Ala Thr Arg Ala Gly Pro Arg Ala Arg Glu Ile Phe Thr Ser
 1 5 10 15
 265 5 10 15
 266 Leu Glu Tyr Gly Pro Val Pro Glu Ser His Ala Cys Ala Leu Ala Trp
 267 20 25 30
 268 Leu Asp Thr Gln Asp Arg Cys Leu Gly His Tyr Val Asn Gly Lys Trp
 269 35 40 45
 270 Leu Lys Pro Glu His Arg Asn Ser Val Pro Cys Gln Asp Pro Ile Thr
 271 50 55 60
 272 Gly Glu Asn Leu Ala Ser Cys Leu Gln Ala Gln Ala Glu Asp Val Ala
 273 65 70 75 80
 274 Ala Ala Val Glu Ala Ala Arg Met Ala Phe Lys Gly Trp Ser Ala His
 275 85 90 95
 276 Pro Gly Val Val Arg Ala Gln His Leu Thr Arg Leu Ala Glu Val Ile
 277 100 105 110
 278 Gln Lys His Gln Arg Leu Leu Trp Thr Leu Glu Ser Leu Val Thr Gly
 279 115 120 125
 280 Arg Ala Val Arg Glu Val Arg Asp Gly Asp Val Gln Leu Ala Gln Gln
 281 130 135 140
 282 Leu Leu His Tyr His Ala Ile Gln Ala Ser Thr Gln Glu Glu Ala Leu
 283 145 150 155 160
 284 Ala Gly Trp Glu Pro Met Gly Val Ile Gly Leu Ile Leu Pro Pro Thr
 285 165 170 175
 286 Phe Ser Phe Leu Glu Met Met Trp Arg Ile Cys Pro Ala Leu Ala Val
 287 180 185 190
 288 Gly Cys Thr Val Val Ala Leu Val Pro Pro Ala Ser Pro Ala Pro Leu
 289 195 200 205
 290 Leu Leu Ala Gln Leu Ala Gly Glu Leu Gly Pro Phe Pro Gly Ile Leu
 291 210 215 220
 292 Asn Val Val Ser Gly Pro Ala Ser Leu Val Pro Ile Leu Ala Ser Gln
 293 225 230 235 240
 294 Pro Gly Ile Arg Lys Val Ala Phe Cys Gly Ala Pro Glu Glu Gly Arg
 295 245 250 255
 296 Ala Leu Arg Arg Ser Leu Ala Gly Glu Cys Ala Glu Leu Gly Leu Ala
 297 260 265 270
 298 Leu Gly Thr Glu Ser Leu Leu Leu Leu Thr Asp Thr Ala Asp Val Asp
 299 275 280 285
 300 Ser Ala Val Glu Gly Val Val Asp Ala Ala Trp Ser Asp Arg Gly Pro
 301 290 295 300
 302 Gly Gly Leu Arg Leu Leu Ile Gln Glu Ser Val Trp Asp Glu Ala Met
 303 305 310 315 320
 304 Arg Arg Leu Gln Glu Arg Met Gly Arg Leu Arg Ser Gly Arg Gly Leu
 305 325 330 335
 306 Asp Gly Ala Val Asp Met Gly Ala Arg Gly Ala Ala Ala Cys Asp Leu
 307 340 345 350
 308 Val Gln Arg Phe Val Arg Glu Ala Gln Ser Gln Gly Ala Gln Val Phe
 309 355 360 365

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 08/10/2005
PATENT APPLICATION: US/10/664,506A TIME: 13:55:24

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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; N Pos. 6,8
Seq#:4; N Pos. 1337
Seq#:7; N Pos. 1606,1620,1631,1655,1658,1666,1673,1688,1705,1711
Seq#:18; Xaa Pos. 96,97,98,99,100,101,102,103,104,105,106,107,108,109,110
Seq#:18; Xaa Pos. 111,112,113,114,162,163,164,165,166,167,168,169,170,171
Seq#:18; Xaa Pos. 172,173,174,175,176,177,178,179,180,181,182,385,386,387
Seq#:18; Xaa Pos. 388,389,390,391,392,393,394,395,396,397,398,399,400,401
Seq#:18; Xaa Pos. 402,403,404,405,406,407,408,409,410,411,412,413,414,415
Seq#:18; Xaa Pos. 416,417,418,419,420,421,422,423,424,425,426,427,428,429
Seq#:18; Xaa Pos. 430,431,432,433,434,435,436,437,438,439,440,441,442,443
Seq#:18; Xaa Pos. 444,445,446,447,448,449,450,488,489,490,491,492,493,494
Seq#:18; Xaa Pos. 495,496,497,498,499,500,516,517,518,519,520,521,522,523
Seq#:18; Xaa Pos. 524,525,526,527,528,529
Seq#:25; Xaa Pos. 139,140,141,142,143,144,145,146,147,148,149,150,192,193
Seq#:25; Xaa Pos. 194,195,196,197,198,199,200,201,202,203,204,205,206,207
Seq#:25; Xaa Pos. 208,209,210,211,212,213,214,215,216,217

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/664,506A

DATE: 08/10/2005

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Input Set : A:\PTO.AMC.txt

Output Set: N:\CRF4\08102005\J664506A.raw

L:48 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1
L:49 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:596 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4
L:683 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:1323
L:837 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:7
L:941 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:1577
M:341 Repeated in SeqNo=7
L:1717 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1724 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:18
L:1731 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:18
L:1738 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:18
L:1749 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:80
M:341 Repeated in SeqNo=18
L:2057 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:2064 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:25
L:2081 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:128
M:341 Repeated in SeqNo=25

**Raw Sequence Listing before editing,
for reference only**



IFW16

RAW SEQUENCE LISTING DATE: 08/09/2005
 PATENT APPLICATION: US/10/664,506A TIME: 14:06:52

Input Set : A:\SEQUENCE LISTING.txt
 Output Set: N:\CRF4\08092005\J664506A.raw

```

4 <110> APPLICANT: Meyers, Rachel
5   Cook, William James
6   Williamson, Mark
7   Rudolph-Owen, Laura A.
8   Gimeno, Ruth
10 <120> TITLE OF INVENTION: 21481, A NOVEL DEHYDROGENASE MOLECULE
11 AND USES THEREFOR
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22 <150> PRIOR APPLICATION NUMBER: 09/816,760
23 <151> PRIOR FILING DATE: 2001-03-23
25 <150> PRIOR APPLICATION NUMBER: 09/634,955
26 <151> PRIOR FILING DATE: 2000-08-08
28 <150> PRIOR APPLICATION NUMBER: 60/192,002
29 <151> PRIOR FILING DATE: 2000-03-24
31 <160> NUMBER OF SEQ ID NOS: 34
33 <170> SOFTWARE: FastSEQ for Windows Version 4.0

```

*Dose Not Comply
Corrected Diskette Needed*

ERRORED SEQUENCES

```

2278 <210> SEQ ID NO: 34
2279 <211> LENGTH: 52
2280 <212> TYPE: PRT
2281 <213> ORGANISM: Artificial Sequence
2283 <220> FEATURE:
2284 <223> OTHER INFORMATION: hypothetical protein domain
2288 <400> SEQUENCE: 34
2289 Tyr Leu Ala Pro Gly Gln Gly Gln Val Ala Ile Val Thr Gly Gly Ala
2290 1           5           10          15
2291 Thr Gly Ile Gly Lys Ala Ile Val Lys Glu Leu Leu Glu Leu Gly Ser
2292          20          25          30
2293 Asn Val Val Ile Ala Ser Arg Lys Leu Glu Arg Leu Lys Ser Ala Ala
2294          35          40          45
2295 Asp Glu Leu Gln
2296          50
E--> 2301 (36)

```

VERIFICATION SUMMARY

PATENT APPLICATION: US/10/664;506A

DATE: 08/09/2005

TIME: 14:06:54

Input Set : A:\SEQUENCE LISTING.txt

Output Set: N:\CRF4\08092005\J664506A.raw

L:48 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:1
L:49 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:596 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4
L:683 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:1323
L:837 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:7
L:941 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:1577
M:341 Repeated in SeqNo=7
L:1717 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:1724 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:18
L:1731 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:18
L:1738 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:18
L:1749 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:80
M:341 Repeated in SeqNo=18
L:2057 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
L:2064 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:25
L:2081 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:25 after pos.:128
M:341 Repeated in SeqNo=25
L:2301 M:332 E: (32) Invalid/Missing Amino Acid Numbering, SEQ ID:34

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